

ABSTRACT

A cDNA fragment participating in the maintenance of smooth muscle differentiation was isolated using a culture system of chicken gizzard smooth muscle cells, the differential display method and the subtracted hybridization method. Using the obtained cDNA sequence as a query, cDNA sequences of Helix Research Institute (Japanese Patent Application No. 2000-118776) were retrieved, and thus, a novel gene "C-NT2RP3001495" was obtained. The protein encoded by this gene has two WW domains that participate in protein interactions in the N-terminal domain. Evidence suggests that this protein binds to other proteins, and thus regulates the intracellular signal transduction, gene expression, and so on, thereby participating in the maintenance of the differentiation of smooth muscle cells. This protein and compounds regulating the expression thereof are markedly useful in developing drugs for various diseases associated with abnormality in the maintenance of smooth muscle cell differentiation.

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